

ABSTRACT OF THE DISCLOSURE

A cross shaft has four trunnions externally provided with roller bearings in a plurality of rows. Each of the trunnions is formed with a recess at its distal end face. A bottom region of the recess is formed in a spherical shape. An inner diameter of an opening region of the recess except the bottom region in a spherical shape is set to be gradually larger toward an opening end edge of the recess. A depth of the recess from the opening end edge to the deepest point is set to be 30 to 70% of the total length of the rollers in an axial direction. By providing this recess is a shape of a punch bowl, rigidity of each of the trunnions of the cross shaft can be reduced, while securing sufficient strength of the trunnion.